

# Presentation on Lawful Intercept Standards for PIPNAS and CGVoP

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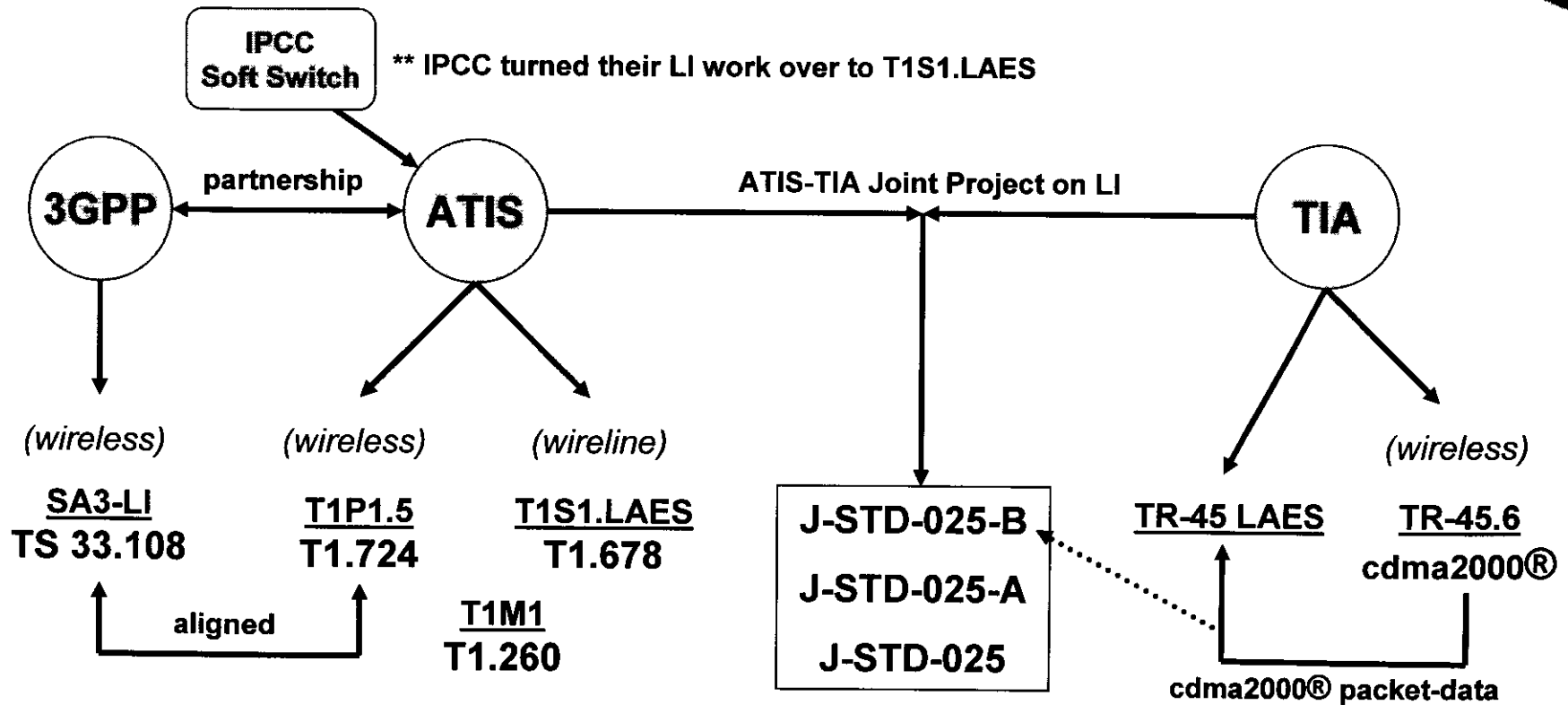
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# **Lawful Intercept Standards PIPNAS and CGVoP**

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# Lawful Intercept Standards by Committee



**T1.724 - UMTS Handover Interface for LI**

**T1.678 - LAES for VoP in a Wireline Telecommunications Network**

**T1.260 - LAES OAM&P**

**J-STD-025-B - provides support for cdma2000® packet-data**

# Lawful Intercept Standards

## ATIS & Joint ATIS-TIA

Existing Standards	SDO/Committee	VoP	Packet-Data	Circuit-Switch
T1.724 UMTS	ATIS T1P1	Yes (SIP for IMS)	Yes GPRS, UMTS PS	see J-STD-025-A
T1.678 Wireline	ATIS T1S1	Yes (SIP, H.323)	No (see Note 1)	see J-STD-025-A
J-STD-025-B	ATIS-TIA	No (see Note 2)	Yes cdma2000 ®	Yes
J-STD-025-A	ATIS-TIA	(See Note 3 and T1.678)	Temporary Solution	Yes
J-STD-025	ATIS-TIA	No	Temporary Solution	Yes

1. Planned – T1S1 is in the process of balloting a project to address PIPNAS for wireline.
2. Planned – TIA has an approved project to address VoP for cdma2000® and have proposed that the solution be placed in a Revision C of J-STD-025. T1P1 and T1S1 already have solutions for VoP.
3. Depending on the system, it may be possible to support VoP via J-STD-025-A messages, but it may not be possible to meet the specifics of all the triggering mechanisms or support all J-STD-025-A capabilities. T1.678 resolved these issues for VoP.

# Lawful Intercept Standards

## Packet-Data

Packet-Data Standard	Technology	Event Reporting Methodology	CII/IRI Events Reported (addresses PIPNAS)
T1.724	GPRS UMTS PS	Reports <u>Connection Management*</u> Events	PDP Context Activation, PDP Context Deactivation PDP Context Modification Start of Intercept when PDP Context Active Serving System Location Update GPRS/UMTS Attach & Detach
J-STD-025-B*	cdma2000® Packet-data	Reports <u>Connection Management*</u> Events	cdma2000 Packet-Data Session Establishment cdma2000 Packet-Data Session Termination cdma2000 Packet-Data Packet Filter Info cdma2000 Packet-Data Intercept Start cdma2000 Packet-Data Serving System

\*The genesis for the cdma2000® packet-data solution in J-STD-025-B was the GPRS solution in T1.724. Note the commonality in functionality of the CII/IRI events.

# Lawful Intercept Standards

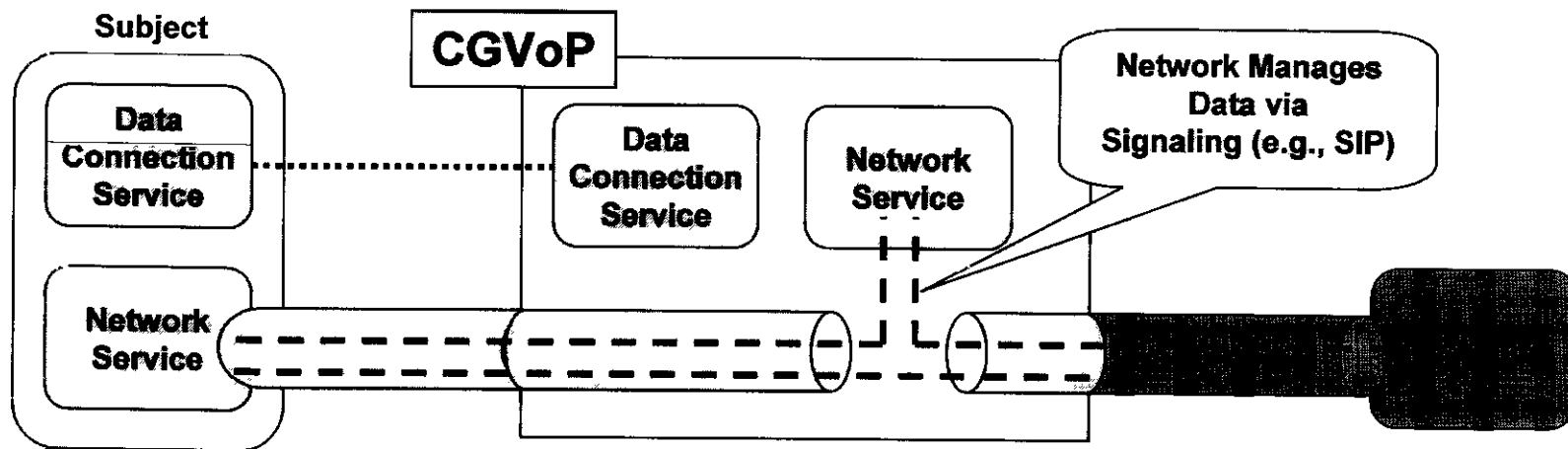
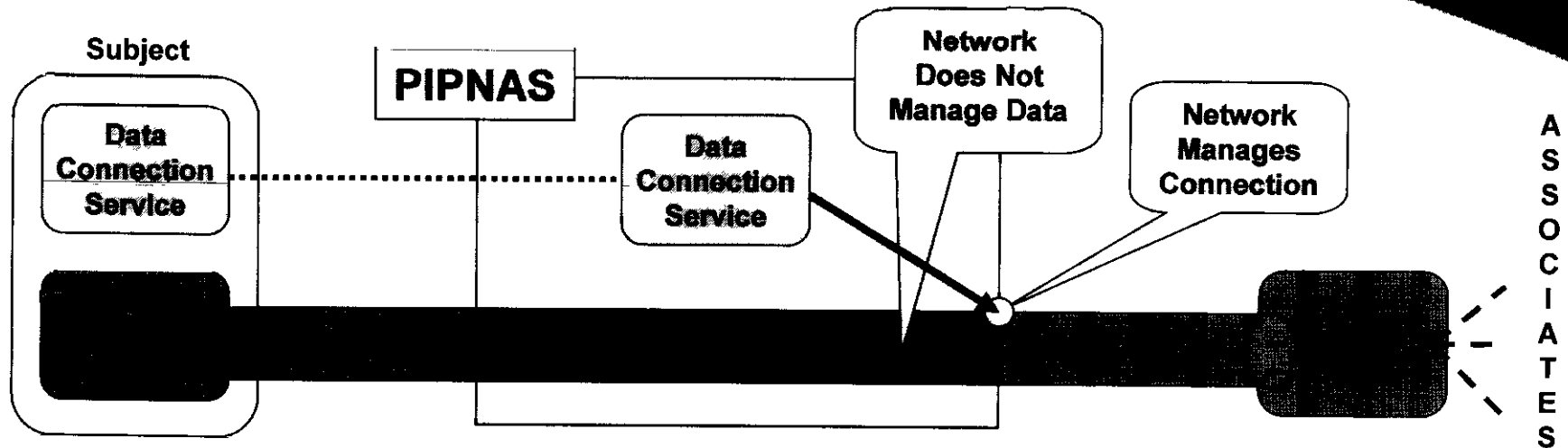
## VoP

Packet-Data Standard	Technology	Event Reporting Methodology	CII/IRI Events Reported (addresses CGVoP)
T1.724	UMTS IMS	Reports <u>Call/Session Management*</u> Events	Reports SIP call/session control messages (e.g., SIP INVITE).
T1.678	wireline	Reports <u>Call/Session Management*</u> Events	Option 1 - Direct Signal Reporting (DSR) of SIP and H.323 call/session control messages (e.g., SIP INVITE).  Option 2 – Maps SIP and H.323 call/session control messages onto J-STD-025-A VoP enhanced messages (e.g., Origination).**

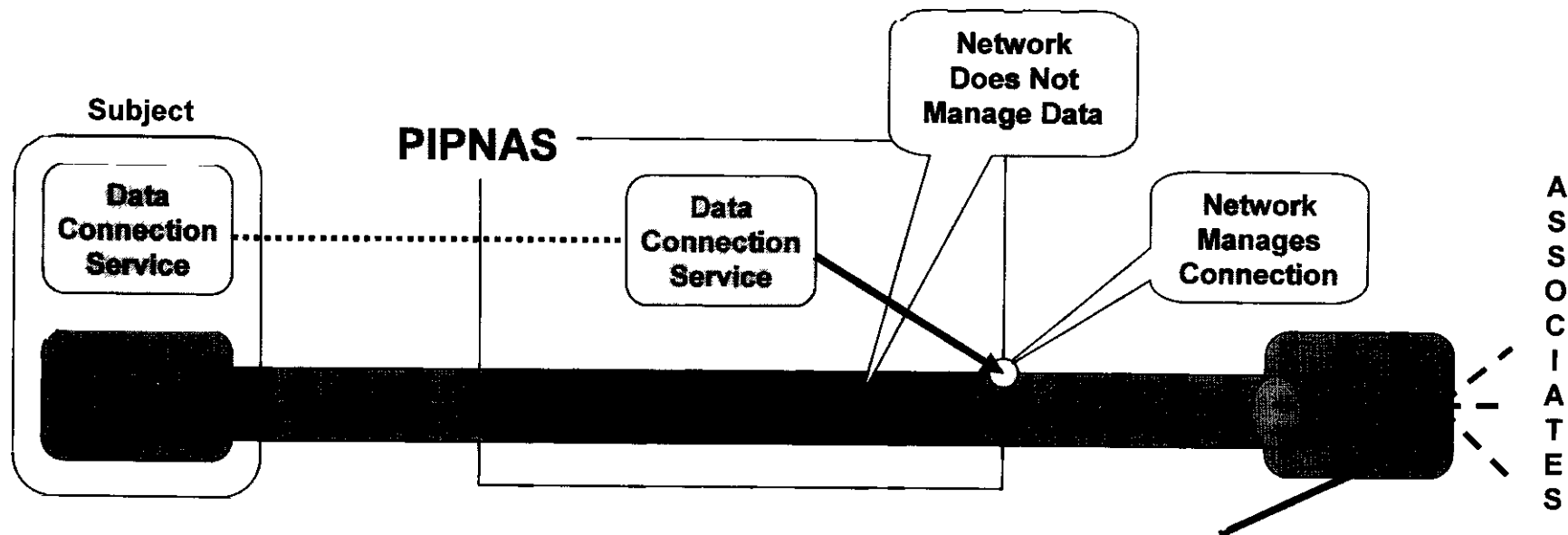
\* The genesis for the DSR VoP solution in T1.678 was the SIP IMS solution in T1.724. Note the commonality in functionality of the CII/IRI events for DSR VoP

\*\* The J-STD-025-A VoP enhanced messages and triggers were developed as part of T1.678.

## Data Connection Service vs Call/Session Service (PIPNAS vs CGVoP)



# Issues with Packet Activity Reporting

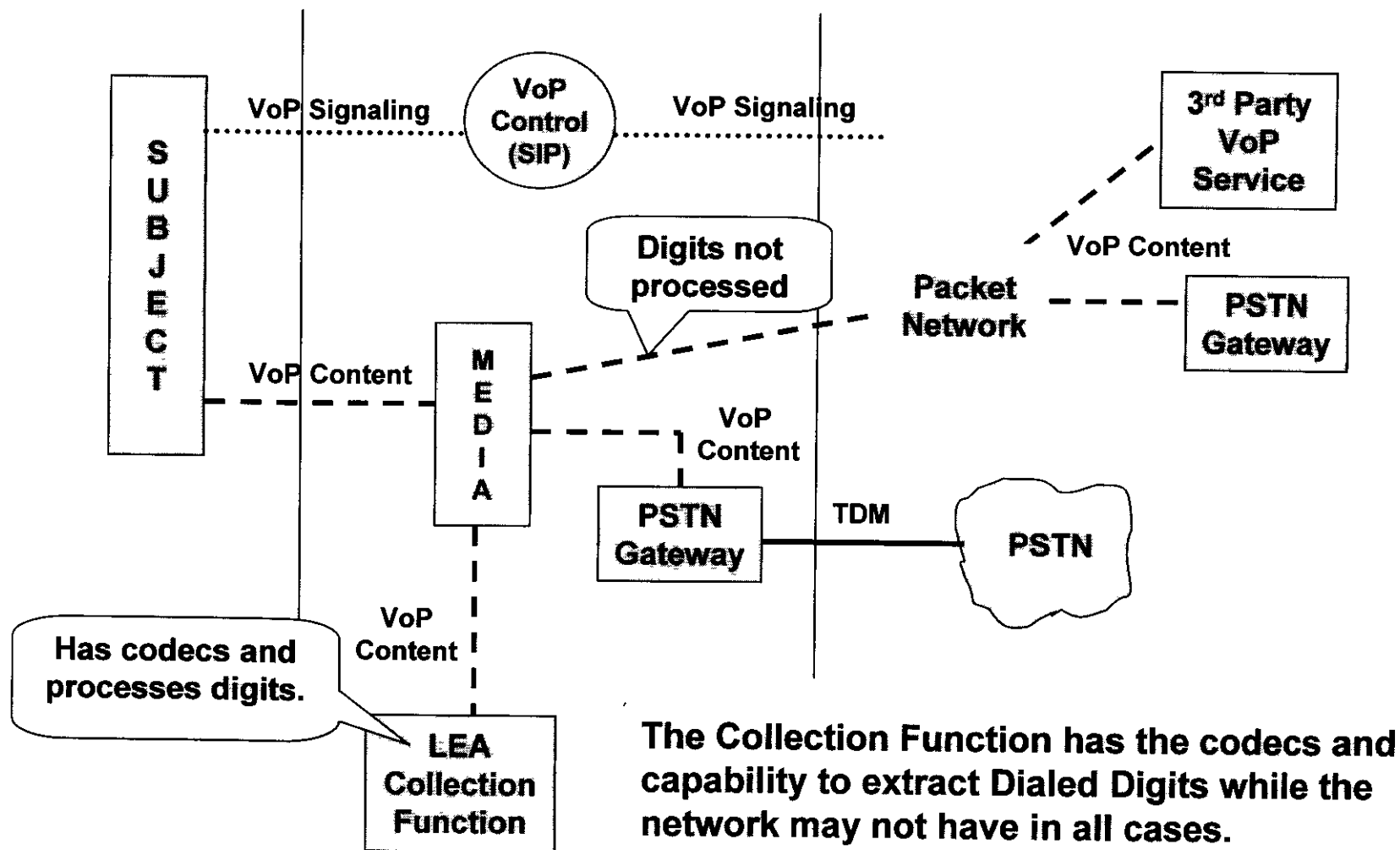


## Packet Activity Reporting

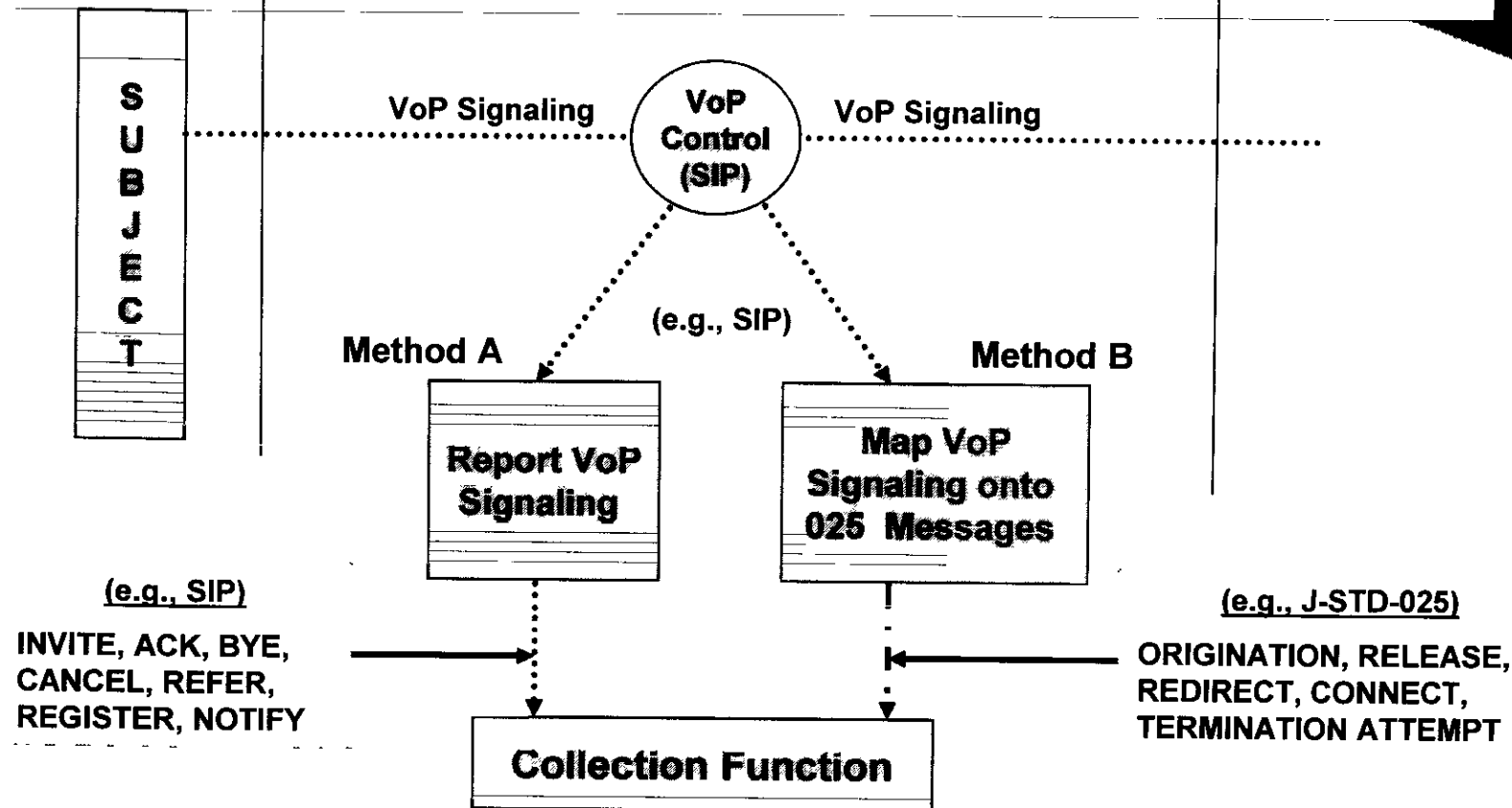
Requires the network to report information about content that it does not manage (e.g., TCP/UDP, Port Numbers, IP Addresses).

This may be a significant impact on the network equipment.

# Issues with Dialed Digit Extraction with VoP



# Direct Signal Reporting vs 025 Mapped CII Messages



T1.724 -> SIP DSR  
T1.678 -> SIP/H.323 DSR  
025 Mapped

The Collection Function can determine what is happening on the call from VoP signaling (e.g. SIP) and can map to J-STD-025-A if desirable.

## Summary

- ATIS T1.724 provides LI for GPRS and UMTS packet-data & VoP (SIP)
  - The GPRS and UMTS LI requirements are specified in T1.724
- ATIS T1.678 provides LI for VoP (SIP & H.323)
  - The wireline VoP LI requirements are specified in T1.678
  - J-STD-025-A capabilities may be used, but it may not be possible to meet all the requirements and capabilities specified.
- ATIS-TIA Joint J-STD-025-B provides LI for cdma2000® packet-data
  - The cdma2000® packet-data LI requirements are specified in J-STD-025-B.
- Thorny Technical LI Issues
  - Dialed Digit Extraction for VoP – collection equipment can extract DDE
  - Packet Activity Reporting for Packet-Data – impact on network equipment
  - Direct Signal Reporting for SIP/H.323 VoP – collection equipment can map